

Remarks/Arguments:

I. Status

The Office Action dated November 16, 2004 (the "Office Action") has been carefully reviewed. Claims 28-30 and 32 have been amended to help clarify an apparent misinterpretation of the Applicant's claimed invention. The definition of the tapered upstream surface portion and wider downstream surface portion are apparent in FIGs. 2-5 of this application. This change to the claims should clarify the misinterpretation of the term "edge" that appeared in the current and prior Office Actions. Also, claims 33-36 have been added. Entry of the above amendments and reconsideration of this application, as amended, is respectfully requested.

II. The Office Action Should Not be Final.

The Office Action states that the action is final because the new grounds for rejection were necessitated by the Applicant's amendment of the claims. Respectfully, the amendments should reasonably have been expected.

The MPEP states that "[a] second or any subsequent action on the merits in any application or patent involved in reexamination proceedings should not be made final if it includes a rejection, on prior art not of record, of any claim amended to include limitations which should reasonably have been expected to be claimed." (MPEP 706.07(a)). The new ground of rejection was based upon U.S. Patent No. 1,662,178 to Yuille (hereinafter "Yuille"). Yuille was cited as prior art for the first time in the Office Action.

Moreover, the original claims erroneously included elements reciting “a leading downstream edge” tapered into a housing with a wider “upstream edge”. As clearly shown in the embodiment of FIGs. 2-5, it is the downstream edge of the baffle that is wider than the upstream edge, contrary to the original form of the claims. Thus, as discussed in the Applicant’s amendment filed on August 17, 2004, the claims were amended so that the claims were clearly directed to the disclosed invention. Accordingly, it should reasonably have been expected that the claims would be amended to correct the error in the claims so as to claim the disclosed invention.¹

Therefore, the ground of rejection in the Office Action for the amended limitations which should reasonably have been expected to be claimed was based upon prior art not of record. Accordingly, the Office Action ought not to have been made final and the Examiner is respectfully requested to withdraw the finality of the Office Action.

III. Double Patenting.

Claims 28-32 were rejected under the judicially created doctrine of obviousness-type double patenting over claims 28-33 of copending Application no. 10/695,076. A terminal disclosure under 37 CFR 1.321 (c) is filed herewith. Accordingly, it is respectfully submitted that the double patenting rejection has been overcome.

IV. 35 U.S.C. § 102 Rejection.

Claims 28, 30 and 32 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 1,662,178 to Yuille (hereinafter “Yuille”). Reconsideration of claims 28,

¹ Additionally, the original search is required to be made based not only on the claims, but also on the invention disclosed in the specification. (MPEP at 904). Accordingly, since the amendments made to

30 and 32 in view of the foregoing amendments and following remarks is respectfully requested.

Discussion re Claim 28

In the Office Action, claim 28 was rejected based upon the allegation that Yuille disclosed “a downstream edge wider than the upstream edge”. (Office Action at page 3). Claim 28 has been amended to clarify that a baffle has a trailing downstream surface portion that is wider than an upstream surface portion. Yuille does not disclose a baffle with a trailing downstream surface portion that is wider than an upstream surface portion.

Specifically, the cited feature in Yuille, spiral fin 6, has a consistent width throughout its length. (See e.g. FIG. 32, wherein the clear opening 7 indicated by dashed lines is defined by the inner edge of the spiral fin 6, see also FIG. 3, showing a constant width for the spiral fin 6). A fin with a constant width is not a fin with a trailing downstream surface portion that is wider than an upstream surface portion.

Moreover, the upstream cross section of the spiral fin 6 (and hence the inner edge of the spiral fin 6) is thicker than the downstream cross section. (Yuille at column 1 lines 46-51, see also FIG. 2 wherein the inlet is located at the top of the Figure (as indicated by the flow arrow close to reference number “1”). Therefore, even if the inner edge of Yuille is construed to disclose a leading upstream surface and a trailing downstream surface, the inner edge of Yuille is *thinner* at the downstream portion of the spiral fin 6. A downstream edge that is *thinner* than an upstream edge is not the same as a

downstream surface portion that is *wider* than an upstream surface portion as recited in the Applicant's claims.

Since Yuille does not disclose a baffle with a trailing downstream surface portion that is wider than an upstream surface portion as recited in amended claim 28, Yuille does not disclose each and every element of Applicant's claim 28. Therefore, the Applicant respectfully submits that claim 28 is patentable over Yuille.

Discussion re Claim 30

Claim 30 was also rejected based upon Yuille. Claim 30 depends from claim 28 and thus includes the wider downstream surface portion as discussed above with respect to claim 28. Therefore, for at least the same reasons set forth above with respect to claim 28, claim 30 is patentable over the prior art.

Discussion re Claim 32

Claim 32 was also rejected based upon Yuille. Claim 32, as amended, includes the limitation of an upstream tapered end that is defined by an inner edge that converges toward an outer edge. Yuille does not disclose a converging inner edge.

As discussed above with respect to claim 28, the spiral fin 6 of Yuille is of a consistent width. Thus, as most clearly shown in FIGs. 2 and 3, the inner edge of the spiral fin 6 is a consistent distance from the outer edge of the spiral fin 6 along the entire length of the spiral fin 6. An edge that is the same distance from another edge along the entire length of the edge cannot converge toward the other edge.

Since Yuille does not disclose an inner edge that converges toward an outer edge as recited in amended claim 32, Yuille does not disclose each and every element of

Applicant's claim 32. Therefore, the Applicant respectfully submits that claim 32 is patentable over Yuille.

V. 35 U.S.C. § 103 Rejection.

Claims 29 and 31 were rejected under 35 U.S.C. § 103 as being unpatentable over Yuille. Reconsideration of claims 29 and 31 in view of the foregoing amendments and following remarks is respectfully requested.

Discussion re Claims 29 and 31

Claims 29 and 31 depend directly from independent claim 28. If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Independent claim 28 is nonobvious at least for the reasons set forth above. Therefore, claims 29 and 31 are nonobvious and claims 29 and 31 are patentable over the prior art.

Additionally, the Office Action states that a baffle run of 210 degrees as recited in claim 29 is "a mere choice of mechanical expedients" and that a paisley shaped baffles recited in claim 31 is "an obvious design choice of mechanical design to alter the shape." (Office Action at page 3). The Office Action further states that motivation for choosing a baffle run of 210 degrees was to "arrive at optimum working values" and the motivation to select a paisley shape was "to change the flow profile". Respectfully, the Office Action fails to provide sufficient authority for either of the foregoing allegations.

Specifically, the Federal Circuit has stated that "[the] factual question of motivation is material to patentability, and [cannot] be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill

would have been led to this combination of references, simply to “[use] that which the inventor taught against its teacher.”” *In re Lee*, 277 F.3d 1338, 1343-1344 (Fed. Cir. 2002)(internal citations omitted). Significantly, the Federal Circuit in *In re Lee* determined that an examiner’s conclusory statements that “the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software” and that “another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial” did not adequately address the issue of motivation to combine. *Id.* at 1343.

Similarly, in the rejection of claims 29 and 31, the Office Action includes a conclusory statement but has not identified any art that discusses the advantages of a baffle run of about 210 degrees or of a paisley shaped baffle. Moreover, the Office Action does not identify any authority for the conclusory statement that such limitations are mere design choices. This is particularly true in consideration of the fact that Kline discloses an orifice baffle and it is unclear how one could design an orifice type baffle to either 1) run about 210 degrees or 2) have a paisley shape. In contrast, the Applicant has explained the non-obvious benefits of these features of the claimed baffle, such as to impart a full turning action to the fluid while minimizing turbulence and pressure drops, and maintaining a circular center opening. (See Specification, paragraphs 27-29).

Therefore, it is respectfully submitted that the Office Action fails to identify any motivation, suggestion, or teaching of the desirability of making the proposed modification to the prior art. Accordingly, the Examiner has failed to show a *prima facie* case of obviousness and the rejection of claims 29 and 31 under 35 U.S.C. 103(a) should be withdrawn.

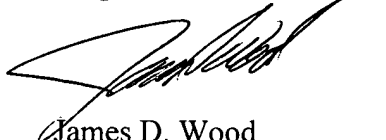
VI. Claims 33-36

Claim 33 is an independent claim and claims 34-36 depend from claim 33. Claim 33 is directed to a baffle configured such that the distance between an inner edge and an outer edge at an upstream portion is a first distance and the distance between the inner edge and the outer edge at a downstream portion is a second distance, the second distance greater than the first distance. Therefore, for reasons similar to those discussed above with respect to the wider downstream portion limitation of claim 28, claims 33-36 are believed to be allowable over the prior art.

VII. Conclusion

Accordingly, Applicants respectfully request entry of the amendments and favorable action on the merits.

Respectfully Submitted,
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